

WHAT IS CLAIMED IS:

1. A fan motor comprising:

a single-phase stepping motor including a stator excited by applying an electric current to a coil to function as a single-phase magnetic pole, and a rotor which has a permanent magnet magnetized to a single phase and rotates as the magnetic pole of the stator changes;

an impeller which is rotated by a rotating shaft of the rotor; and

10 a drive circuit for controlling an application of a current to the coil,

wherein the drive circuit applies pulse voltage to the coil and the coil constant is set so that a mean value of the current applied to the coil is 10 mA or smaller.

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2. The fan motor according to claim 1, wherein the drive circuit includes CMOS transistors.

3. The fan motor according to claim 1, wherein a timepiece IC is used as the drive circuit.

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4. A fan motor according to claim 1, wherein a pulse frequency which is output from the drive circuit at a time of starting is set lower than the pulse frequency during a steady operation.

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5. A fan motor according to claim 1, further comprising a coupling mechanism which couples the impeller to the rotating shaft relatively and rotatably, wherein the coupling mechanism couples the impeller slidably to the rotating shaft of the rotor; causes the rotating shaft to race with respect to the impeller at the time of starting the motor; and causes the impeller to rotate by following the rotation of the rotating shaft by friction during the steady operation.

6. The fan motor according to claim 1, further comprising a coupling mechanism which couples the impeller to the rotating shaft relatively and rotatably, wherein the coupling mechanism couples the impeller slidably to the rotating shaft of the rotor; includes a permanent magnet for attracting the impeller so as to contact the impeller against the rotating shaft of the rotor with a predetermined holding-down force; causes the rotating shaft to race with respect to the impeller at the time of starting the motor; and causes the impeller to rotate by following the rotation of the rotating shaft during the steady operation.